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29. (Amended) A confocal microscope defining a path of rays and comprising:
a microscope objective;
an ocular;
a tube lens; and
an optical system for image rotation disposed in the path of rays of the microscope, wherein the optical system is disposed between the tube lens and microscope objective in the path of rays of the confocal microscope.

REMARKS

Claims 16-22, 25-35, 39, and 40 are pending in the application. Claims 16 and 29 have been amended. Support for the amendments can be found in the specification, inter alia, at page 2, lines 13-14, and Figs. 1-3. Applicants submit that no new matter has been added.

The applicants appreciate the Examiner's acknowledgment of receipt of the foreign priority papers.

Rejections Under 35 U.S.C. § 102(e)

(I) In the Office Action dated March 23, 2001, independent claim 29 and dependent claims 30 and 39 were rejected under § 102 as being anticipated by Yano. By way of this amendment, independent claim 29 has been amended to make it clear that the "objective" is an objective of the microscope. As indicated in claim 29, the claimed optical system is disposed between the tube lens and the microscope objective.

This feature is not disclosed or suggested by Yano. As indicated in column 4, lines 12-13, objective lens 30 is the objective lens of the microscope 1. Yano does not disclose or suggest locating an optical system for image rotation arranged between its microscope objective 30 and ocular 35. Accordingly, amended claim 29 and dependent claims 30 and 39 are clearly patentable over Yano.

Rejections Under 35 U.S.C. § 103(a)

In the Office Action, the Examiner rejected claims 16-18, 20-22, 25, 26, 29-31, 33, 34, and 35 were rejected under § 103 based on Lanni in view of Dewald.

Additional dependent claims stand rejected in further view of Wasmund, Yano, and Kapitza.

It is respectfully submitted that amended claim 16 and associated dependent claims are clearly patentable for at least the following reasons.

First, amended claim 16 recites a confocal microscope. Lanni is not directed to a confocal microscope, but instead is directed to a standing wave microscope.

Second, Lanni expressly teaches away from confocal microscopes. For example, in column 2, lines 21-24,. Lanni states that “[c]onfocal methods have several shortcomings [including] low signal to noise ratio [and that] the resolution of the image is often severely compromised....” Further, Lanni teaches that the specimen is moved, as discussed in Lanni’s abstract, line 6. In contrast, as discussed in the second full paragraph of page 2 of the present application, the present invention is directed to a confocal microscope which permits an object to be measured from a plurality of angular positions while avoiding rotation of the object to be measured.

Thus, for at least these reasons, Lanni teaches away from the present invention because Lanni teaches away from confocal microscopes and Lanni teaches moving the object.

Third, the scanning mirror of a confocal microscope (claimed in claim 16) serves an entirely different purpose than mirror 68 of Lanni. As is well known in the confocal microscope art, a scanning mirror of a confocal microscope is used to scan a sample in the x and y directions so that a point-by-point image of the object is created. In contrast, mirror 68 of Lanni is not used to scan across a specimen, but is instead used to change the angle of the beam with respect to the specimen, as discussed in column 9, lines 57-59, of Lanni . In other words, mirror 68 is used to change the tilt angle of the beam with respect to the specimen.

The Dewald patent does not overcome the deficiencies of Lanni. For example, Dewald is not directed to confocal microscopes but instead is directed to light projection systems, such as TV or video systems. As discussed in the second full paragraph of page 2 of the present application, an object of the invention is to permit measurements

to be taken at a plurality of angular positions without rotating the object to be measured. In contrast, the Dewald device is not examining or measuring anything but instead is merely projecting an image.

It is thus respectfully submitted that the prior art does not disclose, teach, or suggest the invention defined by amended claim 16. For at least the reasons discussed above, the Lanni/Dewald combination does not disclose, teach, or suggest the invention defined by amended claim 29.

It is thus respectfully submitted that the application is now in condition for allowance.

Conclusion

If applicants have not accounted for any fees required by this Amendment, the Commissioner is hereby authorized to charge to our Deposit Account No. 19-0741. If applicants have not accounted for a required extension of time under 37 C.F.R. § 1.136, that extension is requested and the corresponding fee should be charged to our Deposit Account.

The Examiner should feel free to contact the undersigned at (202) 672-5592, if there is anything the undersigned can do to assist the Examiner or expedite prosecution of the application.

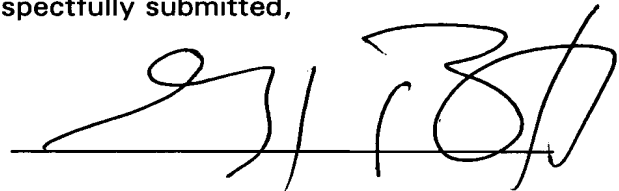
Respectfully submitted,

Date

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Version with Markings to Show Changes Made

Marked up rewritten claims:

16. (Twice Amended) A confocal microscope defining a path of rays and comprising an ocular, a tube lens and an optical system for image rotation disposed in the path of rays of the confocal microscope, wherein the optical system is disposed between a scanning lens and a scanning mirror of a laser scanner in the path of rays of the confocal microscope.

29. (Amended) A confocal microscope defining a path of rays and comprising:
[an] a microscope objective;
an ocular;
a tube lens; and
an optical system for image rotation disposed in the path of rays of the microscope, wherein the optical system is disposed between the tube lens and microscope objective in the path of rays of the confocal microscope.